

In the Claims

Amend the claims, as follows:

1. (currently amended) A network-assisted navigation satellite receiver system, comprising:

a network server with a an initialized first navigation satellite receiver for ~~computing~~ discerning accurate, absolute satellite system time;

a network client remote from the network server and associated with a an uninitialized second navigation satellite receiver and operating according to a relative time that does not yet know said satellite system time;

an interconnecting network between the network server and the network client, and that imposes a non-deterministic time delay on messages, and for communicating information related to said accurate, absolute a network-transmission delay-corrected estimate of said satellite system time from the network server to the network client,
~~and that imposes a non-deterministic time delay on messages;~~

a message latency testing means for determining the fastest transit times of messages from the network server to the network client (L1), and for determining the fastest transit times of return messages from the network client to the network server (L2); and

an offset calculator for computing ~~said offset time from~~ the average of the fastest transit times L1 and L2

and from that said network-transmission delay-corrected estimate of said satellite system time for the network client;

wherein, said network-transmission delay-corrected estimate of said satellite system time is provided for use by said second navigation satellite receiver to quicken its
~~a solution at the network client by the offset calculator of said offset time added to said accurate, absolute time,~~
~~provides for improved receiver initialization.~~

2. (currently amended) ~~The system of claim 1,~~ A network-assisted navigation satellite receiver system, comprising:

a network server with a first navigation satellite receiver for computing accurate, absolute time;

a network client with a second navigation satellite receiver and operating according to a relative time;

an interconnecting network for communicating information related to said accurate, absolute time from the network server to the network client, and that imposes a non-deterministic time delay on messages;

a message latency testing means for determining the fastest transit times of messages from the network server to the network client (L1), and for determining the

fastest transit times of return messages from the network client to the network server (L2); and

an offset calculator for computing said offset time from the average of the fastest transit times L1 and L2;

wherein, a solution at the network client by the offset calculator of said offset time added to said accurate, absolute time, provides for improved receiver initialization; and

wherein the offset calculator provides for a solution to said offset that can be expressed as,

$$offset = \frac{T1 - T2 + \left(\frac{L1}{L2}\right)(T4 - T3)}{1 + \left(\frac{L1}{L2}\right)},$$

where, T1 is the time a test message leaves the network server, T2 is the time that message arrives at the network client, T3 is the time a return message leaves the network client, T4 is the time that return message arrives at the network server, L1 is T1-T2, and L2 is T4-T3.

3. (currently amended) A network-assisted navigation satellite receiver system, comprising:

a network server with a an initialized first navigation satellite receiver for ~~computing~~ discerning

accurate, absolute satellite system time, and providing for connection to a data network;

a network client remote from the network server and associated with a an uninitialized second navigation satellite receiver ~~and operating according to a relative time that does not yet know said satellite system time,~~ and further providing for connection to said data network;

a message latency testing means for determining the ~~fastest~~ transit times of messages from the network server to the network client (L1), and for determining the ~~fastest~~ transit times of return messages from the network client to the network server (L2); and

an offset calculator for computing ~~said offset time from~~ the average of the ~~fastest~~ transit times L1 and L2 and for computing a network-transmission delay-corrected estimate of said satellite system time for the network client;

wherein, said network-transmission delay-corrected estimate of said satellite system time is provided for use by said second navigation satellite receiver to quicken its ~~a solution at the network client by the offset calculator of said offset time added to said accurate, absolute time,~~ provides for improved receiver initialization.

4. (currently amended) A method for fast initialization of a navigation satellite receiver, the method comprising the steps of:

locking onto and tracking a first constellation of navigation satellites with a first navigation satellite receiver;

obtaining absolute satellite system time with said first navigation satellite receiver;

providing a server on a network for transmitting a network delay-corrected estimate of said absolute satellite system time ~~from said first navigation satellite receiver;~~

connecting as a client to said network;

testing a path delay of said network between said server and said client to determine ~~an offset time of said client from said server~~ a network delay;

~~obtaining at said client a report of said absolute time over said network~~ using said network delay and said absolute satellite system time to produce said network delay-corrected estimate and to deliver such to said client;

~~initializing~~ providing a second navigation satellite receiver located at said client with said ~~report of said absolute time and said offset time~~ network delay-corrected estimate of absolute satellite system time such that it may find and lock onto a second constellation of navigation satellites;

wherein, said second navigation satellite receiver is ~~initialized more rapidly with~~ enabled by a priori time information to more quickly initialize itself.

5. (original) The method of claim 4, further comprising the step of:

charging a fee to a user of said client for providing said *a priori* time information.

6-10. (Canceled.)

11. (new) A method for selecting which GPS satellites are correct for a GPS receiver to search for during a cold start, comprising:

cold starting a first GPS receiver which is associated with a network client;

providing a server that includes a second GPS receiver already tracking a constellation of navigation satellites and obtaining therefrom GPS system time;

testing network communication delays between said network client and server by averaging a selection of the quickest times test messages traveled between them;

estimating GPS system time for said first GPS receiver by adding the result of the step of testing to GPS system time determined by said second GPS receiver; and

using an estimate, obtained in the previous step,
in said second GPS receiver to select which GPS satellites
are correct to search for signal during initialization.